WHAT IS CLAIMED IS

1. A method for treating pain hypersensitivity in a mammal, said method comprising administering to the mammal a therapeutically effective amount of an 1-amino-alkylcyclohexane derivative.

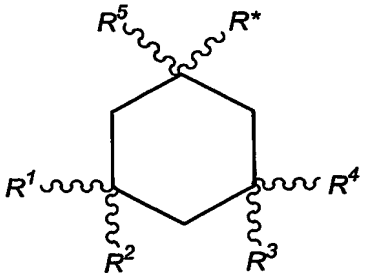
2. The method of claim 1, wherein said hypersensitivity is hyperalgesia.

3. The method of claim 1, wherein said hypersensitivity is allodynia.

4. The method of claim 1, wherein the pain hypersensitivity is selected from the group consisting of visceral hypersensitivity, musculoskeletal allodynia/hyperalgesia and cutaneous allodynia/hyperalgesia.

5. The method of claim 4, wherein visceral hypersensitivity is associated with disorders selected from the group consisting of irritable bowel syndrome (IBS), gastroesophageal reflux disease (GERD), and functional dyspepsia.

6. The method of claim 1, wherein the 1-amino-alkylcyclohexane derivative is represented by the general formula (I):



(I)

wherein R* is $--(CH_2)_n--(CR^6R^7)_m--NR^8R^9$

wherein n+m=0, 1, or 2

wherein R^1 through R^7 are independently selected from the group consisting of hydrogen and lower-alkyl (1-6C), at least R^1, R^4, and R^5 being lower-alkyl, and wherein R^8 and R^9 are independently selected from the group consisting of hydrogen and lower-alkyl (1-6C) or together represent lower-alkylene --$(CH_2)_x$-- wherein x is 2 to 5, inclusive, and enantiomers, optical isomers, hydrates, and pharmaceutically-acceptable salts thereof.

7. The method of claim 6, wherein the 1-amino-alkylcyclohexane derivative is selected from the group consisting of:

1-amino-1,3,5-trimethylcyclohexane,

1-amino-1(trans),3(trans),5-trimethylcyclohexane,

1-amino-1(cis),3(cis),5-trimethylcyclohexane,

1-amino-1,3,3,5-tetramethylcyclohexane,

1-amino-1,3,3,5,5-pentamethylcyclohexane (neramexane),

1-amino-1,3,5,5-tetramethyl-3-ethylcyclohexane,

1-amino-1,5,5-trimethyl-3,3-diethylcyclohexane,

1-amino-1,5,5-trimethyl-cis-3-ethylcyclohexane,

1-amino-(1S,5S)cis-3-ethyl-1,5,5-trimethylcyclohexane,

1-amino-1,5,5-trimethyl-trans-3-ethylcyclohexane,

1-amino-(1R,5S)trans-3-ethyl-1,5,5-trimethylcyclohexane,

1-amino-1-ethyl-3,3,5,5-tetramethylcyclohexane,

1-amino-1-propyl-3,3,5,5-tetramethylcyclohexane,

N-methyl-1-amino-1,3,3,5,5-pentamethylcyclohexane,

N-ethyl-1-amino-1,3,3,5,5-pentamethyl-cyclohexane,

N-(1,3,3,5,5-pentamethylcyclohexyl) pyrrolidine,

3,3,5,5-tetramethylcyclohexylmethylamine,

1-amino-l-propyl-3,3,5,5-tetramethylcyclohexane,

1 amino-1,3,3,5(trans)-tetramethylcyclohexane (axial amino group),

3-propyl-1,3,5,5-tetramethylcyclohexylamine semihydrate,

1-amino-1,3,5,5-tetramethyl-3-ethylcyclohexane,

1-amino-1,3,5-trimethylcyclohexane,

1-amino-1,3-dimethyl-3-propylcyclohexane,

1-amino-1,3(trans),5(trans)-trimethyl-3(cis)-propylcyclohexane,

1-amino-1,3-dimethyl-3-ethylcyclohexane,

1-amino-1,3,3-trimethylcyclohexane,

cis-3-ethyl-1(trans)-3(trans)-5-trimethylcyclohexamine,

1-amino-1,3(trans)-dimethylcyclohexane,

1,3,3-trimethyl-5,5-dipropylcyclohexylamine,

1-amino-1-methyl-3(trans)-propylcyclohexane,

1-methyl-3(cis)-propylcyclohexylamine,

1-amino-1-methyl-3(trans)-ethylcyclohexane,

1-amino-1,3,3-trimethyl-5(cis)-ethylcyclohexane,

1-amino-1,3,3-trimethyl-5(trans)-ethylcyclohexane,

cis-3-propyl-1,5,5-trimethylcyclohexylamine,

trans-3-propyl-1,5,5-trimethylcyclohexylamine,

N-ethyl-1,3,3,5,5-pentamethylcyclohexylamine,

N-methyl-l-amino-1,3,3,5.5-pentamethylcyclohexane,

1-amino-l-methylcyclohexane,

N,N-dimethyl-1-amino-1,3,3,5,5-pentamethylcyclohexane,

2-(3,3,5,5-tetramethylcyclohexyl)ethylamine,

2-methyl-l-(3,3,5,5-tetramethylcyclohexyl)propyl-2-amine,

2-(1,3,3,5,5-pentamethylcyclohexyl-l)-ethylamine semihydrate,

N-(1,3,3,5,5-pentamethylcyclohexyl)-pyrrolidine,

1-amino-1,3(trans),5(trans)-trimethylcyclohexane,

1-amino-1,3(cis),5(cis)-trimethylcyclohexane,

1-amino-(1R,SS)trans-5-ethyl-1,3,3-trimethylcyclohexane,

1-amino-(1S,SS)cis-5-ethyl-1,3,3-trimethylcyclohexane,

1-amino-1,5, 5-trimethyl-3(cis)-isopropyl-cyclohexane,

1-amino-1,5,5-trimethyl-3(trans)-isopropyl-cyclohexane,

1-amino-1-methyl-3(cis)-ethyl-cyclohexane,

1-amino-1-methyl-3(cis)-methyl-cyclohexane,

1-amino-5,5-diethyl-1,3,3-trimethyl-cyclohexane,
1-amino-1,3,3,5,5-pentamethylcyclohexane,
1-amino-1,5,5-trimethyl-3,3-diethylcyclohexane,
1-amino-l-ethyl-3,3,5,5-tetramethylcyclohexane,
N-ethyl-l-amino-1,3,3,5,5-pentamethylcyclohexane,
N-(1,3,5-trimethylcyclohexyl)pyrrolidine or piperidine,
N-[1,3(trans),5(trans)-trimethylcyclohexyl]pyrrolidine or piperidine,
N-[1,3(cis),5(cis)-trimethylcyclohexyl]pyrrolidine or piperidine,
N-(1,3,3,5-tetramethylcyclohexyl)pyrrolidine or piperidine,
N-(1,3,3,5,5-pentamethylcyclohexyl)pyrrolidine or piperidine,
N-(1,3,5,5-tetramethyl-3-ethylcyclohexyl)pyrrolidine or piperidine,
N-(1,5,5-trimethyl-3,3-diethylcyclohexyl)pyrrolidine or piperidine,
N-(1,3,3-trimethyl-cis-5-ethylcyclohexyl)pyrrolidine or piperidine,
N-[(1S,SS)cis-5-ethyl-1,3,3-trimethylcyclohexyl]pyrrolidine or piperidine,
N-(1,3,3-trimethyl-trans-5-ethylcyclohexyl)pyrrolidine or piperidine,
N-[(1R,SS)trans-5-ethyl,3,3-trimethylcyclohexyl]pyrrolidine or piperidine,
N-(1-ethyl-3,3,5,5-tetramethylyclohexyl)pyrrolidine or piperidine,
N-(1-propyl-3,3,5,5-tetramethylcyclohexyl)pyrrolidine or piperidine,
N-(1,3,3,5,5-pentamethylcyclohexyl)pyrrolidine,
their optical isomers, diastereomers, enantiomers, hydrates, their pharmaceutically acceptable salts, and mixtures thereof.

8. A method for treating neuropathic pain in a mammal, said method comprising administering to the mammal a therapeutically effective amount of an 1-amino-alkylcyclohexane derivative devoid of an adamantane (pyramidal) structure.

9. The method of claim 6 or 8 wherein the 1-amino-alkylcyclohexane derivative is selected from the group consisting of neramexane and prodrugs, salts, isomers, analogs and derivatives thereof.

10. The method of claim 9, wherein the 1-amino-alkylcyclohexane derivative is neramexane.

11. The method of claim 6 or 8, wherein the 1-amino-alkylcyclohexane derivative is administered in an amount of 1 to 200 mg per day.

12. The method of claim 11, wherein the 1-amino-alkylcyclohexane derivative is administered in an amount of 10 to 40 mg per day.

13. The method of claim 6 or 8, wherein the mammal is human.

14. A method for treating pain hypersensitivity in a mammal, said method comprising administering to the mammal a therapeutically effective amount of an 1-amino-1,3,3,5,5-pentamethylcyclohexane (neramexane), or prodrug, salt, isomer, analog or derivative thereof.

15. The method of claim 14, wherein said hypersensitivity is hyperalgesia.

16. The method of claim 14, wherein said hypersensitivity is allodynia.

17. The method of claim 14, wherein the pain hypersensitivity is selected from the group consisting of visceral hypersensitivity, musculoskeletal allodynia/hyperalgesia and cutaneous allodynia/hyperalgesia.

18. The method of claim 17, wherein visceral hypersensitivity is associated with disorders selected from the group consisting of irritable bowel syndrome (IBS), gastroesophageal reflux disease (GERD), and functional dyspepsia.

19. A method for treating neuropathic pain in a mammal, said method comprising administering to the mammal a therapeutically effective amount of an 1-amino-

1,3,3,5,5-pentamethylcyclohexane (neramexane) or prodrug, salt, isomer, analog, or derivative thereof.

20. The method of claim 14 or 19, wherein the 1-amino-1,3,3,5,5-pentamethylcyclohexane (neramexane) or prodrug, salt, isomer, analog, or derivative thereof is administered in an amount of 1 to 200 mg per day.

21. The method of claim 20, wherein the 1-amino-1,3,3,5,5-pentamethylcyclohexane (neramexane) or prodrug, salt, isomer, analog, or derivative thereof is administered in an amount of 10 to 40 mg per day.

22. The method of claim 14 or 19, wherein the mammal is human.

23. The method of claim 14 or 19, wherein the 1-amino-1,3,3,5,5-pentamethylcyclohexane (neramexane) or prodrug, salt, isomer, analog, or derivative thereof is administered in an amount of 5 to 100 mg per human per day.

24. The method of claim 23, wherein the 1-amino-1,3,3,5,5-pentamethylcyclohexane (neramexane) or prodrug, salt, isomer, analog, or derivative thereof is administered in an amount of 12.5 to 80 mg per human per day.